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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/300,676	04/27/1999	ROBERT DOYLE	73744	4753
7590	03/19/2004		EXAMINER	
JON P CHRISTENSEN WELSH & KATZ LTD 120 SOUTH RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606			DEANE JR, WILLIAM J	
			ART UNIT	PAPER NUMBER
			2642	/7
DATE MAILED: 03/19/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/300,676	DOYLE ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	William J Deane	2642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 29 September 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-38 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>15&amp;16</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

The prosecution is re-opened after the decision by the Board of Patent and Appeals (paper # 13, 5/19/03). A new rejection is enclosed.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21 – 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, claim 21, a method claim depends from claim 15, an apparatus claim.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed means (claims 14 – 30) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Similarly, the claimed steps must be shown in the drawings. For example, just in claim 1, no determining step is shown that shows a target occupancy, no processing step is shown, the assigning step is not shown. In fact, since Fig. 2 is the only flow diagram (having only 6 steps, some not claimed) it is obvious that many more flow diagrams are needed for this application. For example, note step 102, none of the claims recite such a step, but the claims do recite actual and target

occupancies, call types, work types, skills, etc., which are not shown. The calculating step (step 106) is too broad to encompass the specific steps as claimed in the instant application. In addition, the matrix processor, selection processor, the repair processor or the objective function processor, which were included in Amendment B (paper #6) do not have reference numerals. These and many other claimed steps and/or elements are not found in the drawings.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Specification***

The disclosure is objected to because of the following informalities:

The call processor is not mentioned in the specification or shown in the drawings. In paper #6, Applicants amended the specification on page 4 to include "a call processor (CP) of " the ACD 18. In Fig. 1, element #17 is a CPU, which is quite different from a CP. Did applicant mean that the CP and CPU are the same?

The selection processor is not found in the specification and therefore, it is not known what it is selecting. In addition, no repair processor is mentioned in the specification. Additionally, no objective processor is found in the specification.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 - 38 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No 5,828,747 (Fisher et al.). It is noted that the Fisher reference was contained in the pertinent prior art section at paragraph 5 of the first Office Action mailed November 11, 1999.

With respect to claims 1, 14, 27 and 38, Fisher et al. teach a method of assigning agents of an automatic call distributor (ACD 101, Fig.1), to incoming call types handled by the ACD (note call queues 120, call vector 140 and Col. 3, lines 43 – 46), the method comprising:

determining a target occupancy matrix including a target occupancy for each agent for each call type of the plurality of call types (see Fig. 7);  
processing the call of a first type of the types determined in the target occupancy matrix; and assigning the call to an agent of the agents of the ACD with the largest relative difference between an actual occupancy of calls of the first type handled by the agent and the target occupancy of calls of the first type determined for the agent in the

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target occupancy matrix. In particular, note target occupancy data 702 in Fig. 7 (see Abstract, Col. 2, lines 13 – 23, Col. 2, lines 41 – 51 and Col. 6, lines 9 - 19).

With respect to claims 2, 15 and 28, and semi-permanent data (agent proficiency) note Col. 3, lines 54 – 56. With respect to permanent data (skill types) note Col. 3, lines 36 – 42. With respect to variable data (target total agent occupancy for each agent) note Col. 5, lines 15 – 34 and Fig. 7. In addition, compare Page 8, lines 7 – 22 of the instant application with Figs. 2 and 7, Col. 3, line 36 – Col. 4, line 12 and Col. 5, lines 15 – 34 of the Fisher et al. reference.

With respect to claims 3 - 4, 11, 16 - 17 and 29 -30, note permanent data (skill types) in the target matrix in Fig. 7. In addition, compare Page 6, lines 10 – 17 of the instant application with Col. 2, lines 1 – 4 of the reference.

With respect to claims 5 - 6, 18 – 19 and 31 – 32, note Fig. 2, Col. 3, lines 54 – 56 and Col. 4, lines 4 – 7 and lines 37 - 42.

With respect to claims 7, 20 and 30, note Col. 5, lines 21 – 24. Since the data 700 – 701 is pre-administered, the examiner believes this data is manually entered.

With respect to claims 8 – 14, 21 – 26 and 31 - 37, note Col. 2, lines 53 – 57, Col. 3, lines 51 – 56, Col. 4, line 57 – Col. 5, line 51. It should be noted that the target matrix includes, among other things actual occupancies, target occupancies, skills and levels of skills. Through the above Cols., it is clear that at least the actual occupancies change and therefore, the target matrix changes. With respect to a call processor, note that call vector 140. With respect to the call matrix processor, note call-distribution function 150.

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With respect to the repair processor, as best as can be determined, the repair processor concerns itself with iteratively changing the target matrix to actual occupancy in line with the target matrix (that is what Fisher does, see Abstract)

With respect to the selection processor, as best as can be determined, it appears that this processor selects agents based on skill or other data (note agent queues 130).

The objective function processor determines the effect of call allocation on the target matrix, such is taught by Fisher et al. (see Fig. 6).

With respect to the call distributor, note ACD 150.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent No. 6,359,982 (Foster et al.) – note Fig. 4; and

U.S. Patent Application No. 2000/0006192 (Bengtson et al.) – note Fig. 4.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bill Deane whose telephone number is (703) 306-5838. In addition, facsimile transmissions should be directed to Bill Deane at facsimile number (703) 872-9306.

02Mar04

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**WILLIAM J. DEANE, JR.**  
**PRIMARY EXAMINER**